

**Draft Data Dictionary for the Fourth Level Elements for All Specific
Treatment Technologies Identified Under Phase 4 and 5
(4/20/98)**

WBS	WBS DESCRIPTION
	PHASE 4 (REMEDIAL ACTION - CAPITAL COSTS)
.01	Construction or Installation of Treatment Components SF(M2) <ul style="list-style-type: none"> Includes construction or installation of treatment components and materials that are not part of a treatment plant; for example, permeable groundwater treatment barriers. The unit of measure should match that of the parent treatment technology; in this example, the surface area of the barrier.
.02	Pads/Foundations/Spill Control SF(M2) <ul style="list-style-type: none"> Includes construction of pads, foundations, spill control structures, etc. for a non-permanent treatment plant. The unit of measure is the ground area of the plant site.
.03	Mob/Setup of Non-Permanent Treatment Plant EA(EA) <ul style="list-style-type: none"> Includes mobilization, transport of people and equipment to site prior to start-up of remedial activity, initial assembly, and setup of non-permanent treatment plant equipment. The unit of measure is the number of plants.
.04	Ownership/Rental of Non-Permanent Treatment Plant (Process Eq & Appurt) YR(YR) <ul style="list-style-type: none"> Includes technology parts and supplies, materials and supplies to make technology process equipment and appurtanances operative, rental/leasing or purchase of equipment, and amortization of capital equipment. The unit of measure is based on a one year time period.
.05	Start-up EA(EA) <ul style="list-style-type: none"> Includes activities associated with the start-up of the treatment technology. The unit of measure is the number of plant start-ups.
.06	Non-process Equipment (Office/Admin/Computer/Safety/Vehicles) EA(EA) <ul style="list-style-type: none"> Includes purchase, rental, or lease of office and administrative equipment, data processing/computer equipment, safety equipment, vehicles, etc. The unit of measure is the number of pieces of equipment.
.07	Testing EA(EA) <ul style="list-style-type: none"> Includes testing of the treatment technology prior to and during start-up procedures. The unit of measure is the number of tests needed.
.08	Permits/Licenses EA(EA) <ul style="list-style-type: none"> Includes air emission permits, water discharge permits, and any other

	permits required for the application. The unit of measure is the number of permits required.
.09	Training EA(EA) <ul style="list-style-type: none"> Includes training of operation and maintenance personnel. The unit of measure is the number of persons trained.
.10	Project Engineering EA(EA) <ul style="list-style-type: none"> Includes personnel and resources for activities associated with the engineering of the remedial technology. The unit of measure is the number of plants included.
.11	Major Plant Upgrades/Replacements EA(EA) <ul style="list-style-type: none"> Includes plant upgrades or replacements greater than 25% the cost of the original plant purchase cost. The unit of measure is the number of plant upgrades/replacements.
.12	Demob/Takedown of Non-Permanent Treatment Plant EA(EA) <ul style="list-style-type: none"> Includes takedown of the plant equipment, demobilization, transport of people and equipment away from site after completion of remedial activity, of the plant equipment. The unit of measure is the number of plants.
	PHASE 4 (OPERATION AND MAINTENANCE -SHORT-TERM < 3 YEARS OR DURING REMEDIAL ACTION OPERATION PHASE 4) PHASE 5 (OPERATION AND MAINTENANCE - LONG-TERM >3 YEARS OR DURING OPERATION AND MAINTENANCE PHASE 5)
.31	Maintenance and Repair of Treatment Components SF/YR(M2/YR) <ul style="list-style-type: none"> Includes maintenance and repair of treatment components and materials that are not part of a treatment plant; for example, permeable groundwater treatment barriers. The unit of measure should match that of the parent treatment technology per unit of time; in this example, the surface area of the barrier per year.
.32	Contaminated Material Pre-processing YR(YR) <ul style="list-style-type: none"> This applies to ex situ applications and includes pre-processing activities such as size separation, screening, mixing, and chemical conditioning. The unit of measure is per year of plant operation.
.33	Plant Operation Materials (Bulk Chemicals/Raw Materials) YR(YR) <ul style="list-style-type: none"> Includes consumable supplies, process materials and bulk chemicals, and raw materials. The unit of measure is per year of plant operation.
.34	Plant Operation Labor YR(YR) <ul style="list-style-type: none"> Includes labor to operate and maintain equipment, labor supervision, payroll

	expenses (FICA, vacation, worker medical insurance, pension contribution). The unit of measure is per year of plant operation.
.35	Non-process Equipment (Office/Admin/Computer/Safety/Vehicles) YR(YR) <ul style="list-style-type: none"> Includes maintenance and repair of office and administrative equipment, data processing/computer equipment, safety equipment, vehicles, etc. The unit of measure is per year of plant operation.
.36	Plant Operation Energy (Fuel/Utilities) YR(YR) <ul style="list-style-type: none"> Includes consumable energy supplies, such as fuel, electricity, natural gas, water, etc. The unit of measure is per year of plant operation.
.37	Ownership/Rental of Non-Permit Plant (Process Eq & Appurt) YR(YR) <ul style="list-style-type: none"> Includes technology parts and supplies, materials and supplies to make technology process equipment and appurtanances operative, rental/leasing or purchase of equipment, and amortization of capital equipment. The unit of measure is per year of plant operation.
.38	Maintenance and Minor Plant Upgrades/Replacements YR(YR) <ul style="list-style-type: none"> Includes routine maintenance and minor plant upgrades or replacements less than 25% the cost of the original plant purchase cost. The unit of measure is per year of plant operation.
.39	Analytical Services YR(YR) <ul style="list-style-type: none"> Includes analytical costs associated with operation of the technology, specific to this technology. The unit of measure is per year of plant operation.
.40	Monitoring (Performance/Compliance) YR(YR) <ul style="list-style-type: none"> Includes sampling and analysis costs to demonstrate compliance with applicable requirements and permits, specific to this technology. The unit of measure is per year of plant operation.
.41	Training YR(YR) <ul style="list-style-type: none"> Includes training of operation and maintenance personnel. The unit of measure is per year of plant operation.
.42	Permits/Licenses YR(YR) <ul style="list-style-type: none"> Includes air emission permits, water discharge permits, and any other permits required for the yearly operation. The unit of measure is per year of plant operation.